

CLAIMS

1 1. A gene encoding a protein that has the amino
acid sequence as set forth in SEQ ID NO: 2, that is
involved in differentiation, and that has a homeodomain-
like sequence.

2. A gene encoding a protein that has an amino
acid sequence modified by the addition or deletion of one
or a plurality of amino acids and/or replacement with
other amino acids in the amino acid sequence as set forth
in SEQ ID NO: 2, that is involved in differentiation, and
that has a homeodomain-like sequence.

3. A gene that hybridizes to the nucleic acid
having the nucleotide sequence as set forth in SEQ ID NO:
1 or a portion thereof under a stringent condition, and
that encodes a protein that is involved in
differentiation and that has a homeodomain-like sequence.

4. A gene encoding a protein that has the amino
acid sequence as set forth in SEQ ID NO: 4, that is
involved in differentiation, and that has a homeodomain-
like sequence.

5. A gene encoding a protein that has an amino
acid sequence modified by the addition or deletion of one
or a plurality of amino acids and/or replacement with
other amino acids in the amino acid sequence as set forth
in SEQ ID NO: 4, that is involved in differentiation, and
that has a homeodomain-like sequence.

6. A gene that hybridizes to the nucleic acid
having the nucleotide sequence as set forth in SEQ ID NO:
3 or a portion thereof under a stringent condition, and
that encodes a protein that is involved in
differentiation and that has a homeodomain-like sequence.

7. The gene according to any one of the claims 1
to 6 wherein said protein is a protein having an ability
of inducing adventitious shoots.

8. The gene according to any one of the claims 1
to 6 wherein said protein is a protein having an ability
of inducing branching.

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9. A vector comprising the gene according to any one of the claims 1 to 8.

10. A host transformed with the vector according to claim 9.

11. A protein encoded by the gene according to any one of the claims 1 to 8.

12. A method for producing a protein that is involved in differentiation and that has a homeodomain-like sequence, said method comprising culturing or growing the host according to claim 10 and then harvesting said protein from said host.

13. The method for producing a protein according to claim 12, wherein said protein has an ability of inducing adventitious shoots.

14. The method for producing a protein according to claim 12, wherein said protein has an ability of inducing branching.

15. A plant or a plant cell into which the gene according to any one of the claims 1 to 8 has been introduced.

16. A method for inducing differentiation from a plant or a plant cell into which the gene according to any one of the claims 1 to 8 has been introduced.